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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/11/2001

Yvan Strauven

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EXAMINER

CREPEAU, JONATHAN

ART UNIT

PAPER NUMBER

1745

MAIL DATE

DELIVERY MODE

08/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/936,531

Applicant(s)

STRAUVEN ET AL.

Examiner

Jonathan S. Crepeau

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,10,12-14,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,8,16 and 17 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 21, 2007 has been entered.

This Office action addresses claims 1, 2, 4-8, 10, 12-14, 16, and 17. Claims 7, 8, 16, and 17 are allowed. Claim 10 contains allowable subject matter but is objected to due to an informality. This action is non-final.

Claim Objections

2. Claims 4, 10, 13, and 14 are objected to because of the following informalities: each of these claims depends from a cancelled claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. Claims 1, 2, 4-6, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 94/19502 in view of Suzuki (U.S. Patent 5,917,113).

Regarding claim 5, WO '502 is directed to an alkaline battery comprising an anode, cathode, and electrolyte (see claim 23 of the reference). Regarding claim 1, the anode comprises a zinc alloy having a composition which anticipates each of the claimed compositions (a), (b), and (c). For example, the alloy disclosed at page 5, line 30, which contains 70 ppm (0.007 wt%) Al and 250 ppm (0.025 wt%) Bi, anticipates alloy (c) of instant claim 1. The alloy disclosed at page 6, line 12 (0.007 wt% Al, 0.025 wt% In) anticipates alloy (a) of instant claim 1. The alloy disclosed at page 6, line 21 (0.003 wt% Al, 0.025 wt% In, 0.025 wt% Bi) anticipates alloy (b) of instant claims 1 and 2. Regarding claim 6, the powder comprises metal cemented out of the electrolyte (see claim 24 of the reference). Regarding claim 1, the powder can be made by a centrifugal atomization process (see page 3, line 30).

WO '502 does not expressly teach that the centrifugal atomization process is carried out in an atmosphere with an oxygen content between 0.2 and 4 vol %, as recited in claim 1.

Suzuki is directed to a process for producing spherical metal particles. The process involves centrifugally atomizing molten metal in an atmosphere containing 3-600 ppm oxygen (see abstract).

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the disclosure of Suzuki would motivate the artisan to conduct the centrifugal atomization of WO '502 in an atmosphere containing 3-600 ppm oxygen. In column 4, line 43, Suzuki teaches that "as has been discussed above in detail, the production process of the present invention permits mass-production of fluent, spherical metal particles having a smooth surface, in low cost and excellent in dispersibility in a dispersing

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medium.” Accordingly, the artisan would be motivated to conduct the centrifugal atomization of WO ‘502 in an atmosphere containing 3-600 ppm oxygen.

It is further noted that the instant claims are product-by-process claims. It is the position of the Examiner that absent evidence to the contrary, the powder of WO ‘502 made by the process of Suzuki would be substantially identical to the claimed powder. As is well-settled, the patentability of a product does not depend on its method of production. If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Furthermore, once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). See also MPEP §2113. Accordingly, the instant claims are not considered to be distinguished over WO ‘502 and Suzuki.

Response to Arguments/Declaration

4. The declaration under 37 CFR 1.132 filed June 21, 2007 is insufficient to overcome the rejection of claims 1, 2, 4-6, and 12-14 based upon WO 94/19502 in view of Suzuki as set forth in the last Office action because: the declaration does not sufficiently compare the range

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disclosed by Suzuki with the instantly claimed range. Suzuki discloses a range of 3-600 ppm of oxygen in the oxygen/nitrogen atmosphere. According to Applicant's calculation, 600 ppm corresponds to 0.0599 vol%. As calculated by the Examiner, this equates to 0.0525% (600 ppm = 0.06 wt% O₂ = 0.0525 mol% O₂ = 0.0525 vol% O₂). However, the declaration does not show any value within the range of Suzuki; rather, it shows values of 1% and 3.25%. In addition, the declaration filed on May 15, 2007 shows values of 0% and 0.25%, which are also not within Suzuki's range. It is believed that a showing of a value of 0.05% is necessary since it represents the approximate upper endpoint of Suzuki. In addition, a showing of a value of 0.20% is necessary since it is the lower endpoint of the claimed range. Neither of these values has been shown in the declarations. As such, the declarations are not sufficient to overcome the rejection under 35 USC 103. Applicant is also reminded that the claimed product must be shown to be unobvious from the product of the prior art. Here, the prior art product presumably has a more spherical shape, but this is clearly suggested by Suzuki. Applicant should address the issue of how the claimed product is unobvious from the product of WO '502/Suzuki since Suzuki clearly suggests that the particles made by his method will be spherical.

Allowable Subject Matter

5. Claims 7, 8, 16, and 17 are allowed, and claim 10 is objected to as containing allowable subject matter.
6. The following is a statement of reasons for the indication of allowable subject matter:

The instant claims are directed to methods of manufacturing a zinc alloy powder comprising a centrifugal atomization step where the oxygen content in the atmosphere is between 0.2 and 4% by volume. As stated by Applicants, Suzuki teaches away from using oxygen contents higher than 600 ppm.

Conclusion

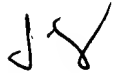
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan, can be reached at (571) 272-1292. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau
Primary Examiner
Art Unit 1745
August 23, 2007